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25X1

TOP SECRET

25X1

OUT51610

PRIORITY

P 031829Z
FM NPIC
TO AFSSO USAFE
AFSSO PACAF

1963 AUG 4 01 26Z

5 AUG

25X1

HFS
CJS
CFC
PMS
ACL

25X1

YWQLAZC/AFSSO SAC
YWQLAZC/AFSSO ACIC
YWQLAZC/AFSSO FTD
YWQLAZC/AFSSO DIA PROD CTR
ZEM
T O P S E C R E T

SSOS PASS TO APPROPRIATE

25X1

TCOS. CITE NPIC-1884.

Grace (File)

THE FOLLOWING INFORMATION IS FROM THE NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER. SUBJECT: TECHNICAL DATA FOR MISSION 8003.

THE FOLLOWING TECHNICAL DATA NECESSARY FOR THE REDUCTION OF QUANTITATIVE INFORMATION FROM PHOTOGRAPHY OF MISSION 8003 IS FORWARDED FOR YOUR USE.

A. THIS PHOTOGRAPHY INVOLVES THE USE OF THREE CAMERAS: ONE PANORAMIC CAMERA, ONE STELLAR CAMERA AND ONE INDEX CAMERA.

B. OPERATIONAL FOCAL LENGTH

1. PANORAMIC - 1677.321 MM
2. STELLAR - 38.33 MM
3. INDEX - 83.55 MM

C. LENS DISTORTION

1. PANORAMIC

MINUS 2.0 DEGREES	.018 MM
MINUS 1.5 DEGREES	.010 MM
MINUS 1.0 DEGREES	.010 MM

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MINUS 0.5 DEGREES	.010 MM
0.0 DEGREES	.010 MM
0.5 DEGREES	.013 MM
1.0 DEGREES	.013 MM
1.5 DEGREES	.010 MM
2.0 DEGREES	.010 MM

D. CALIBRATION DATA

1. PANORAMIC FORMAT DIMENSIONS

A. NOT AVAILABLE

B. NOT AVAILABLE

C. NOT AVAILABLE

2. STELLAR INDEX KNEE ANGLE

89 DEGREES 53' 9"

3. LOCATION OF PRINCIPLE POINT

A. STELLAR (COORDINATES)

X EQUALS .011 MM

Y EQUALS MINUS .016 MM

NOTE: VIEWING POSITIVE, EMULSION UP, COORDINATE SYSTEM IS DEFINED AS PLUS "Y" IS IN DIRECTION OF FLIGHT. PLUS "X" IS TO THE LEFT AND PERPENDICULAR TO LINE OF FLIGHT.

B. INDEX (COORDINATES

X EQUALS .050 MM

Y EQUALS MINUS .061 MM

4. CALIBRATED MIRROW POSITIONS AS REFERENCED TO YAW AXIS

A. FORWARD - 52 DEGRES 27' 2"

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B. VERTICAL - 44 DEGREES 58' 22"

C. AFT - 37 DEGREES 31' 43"

5. CALIBRATED ROLL STEERING POSITIONS AS REFERENCED TO THE VERTICAL.

A.	MINUS 30 DEGREES	NOT AVAILABLE
B.	MINUS 15 DEGREES	NOT AVAILABLE
C.	0 DEGREE	NOT AVAILABLE
D.	15 DEGREES	NOT AVAILABLE
E.	30 DEGREES	NOT AVAILABLE

6. OPTICAL AXIS OF INDEX CAMERA WITH THE OPTICAL AXIS OF THE PANORAMIC CAMERA IN VERTICAL MODE.

A. NOT AVAILABLE

E. EXPOSURE DATA

1. PANORAMIC CAMERA

A. SO 132

B. F 5.0

C. .307 INCH

D. WRATTEN 12

2. STELLAR

A. SO 130

B. F 1.9

C. 2 SEC.

D. NONE

3. INDEX

A. SO 130

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B. F 4.5

C. 1/500 SEC.

D. WRATTEN 21

F. RESOLUTION DATA

1. PANORAMIC CAMERA

77.0 (L/MM AVG)

2. INDEX CAMERA

77.61 (L/MM AWAR)

G. INCLINATION ANGLE (REFER TO YAW TABLES AT END OF CABLE FOR VALUE OF PROGRAMMED YAW) 75 DEGREES

H. IMC DATA

1. TYPE RAMP USED - COSINE RAMP NO. 4

2. RAMP RATES

	BEGIN	CENTER
CYCLE PERIOD (SEC)	2.519 SEC	1.372 SEC
SCAN VELOCITY (INCHES/SECOND)	38.027	69.818
IMC VELOCITY (INCHES/SECOND)	1.638	3.008

NOTE: DEFINATIONS OF ITEMS "I" THROUGH "S" WHICH APPEAR IN TABULAR FORM. REFER TO XH-6 TECHNICAL MANUAL FOR SIGN CONVENTION.

I. ROLL STEERING POSITION

J. OPERATION

PASS

TYPE (ASCENDING, DESCENDING)

MODE (STERO, MONO)

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K. LATITUDE CENTER OF BURST BLOCK (HUNDERTHS OF A DEG)

L. LONGITUDE CENTER OF BURST BLOCK (HUNDERTHS OF A DEG)

M. BURST BLOCK NUMBER

N. SUN ALTITUDE (DEG)

O. CAMERA ON (GCT, DAY, HOUR, MINUTE)

P. EXPOSURE (MILLISECONDS)

Q. RAMP USED

R. CAMERA ON TIME UP RAMP (SEC)

S. CAMERA OFF TIME UP RAMP (SEC)

I	J	K	L	M	N	O	P	Q	R	S
00	01DM	70 52N	178 55E	01	36	310124	04.9	4	1158	1183
00	01DS	53 58N	153 30W	01	38	310129	04.7	4	1466	1490
00	01DS	52 28N	152 26W	02	38	310130	04.7	4	1490	1514
00	01DS	50 58N	151 25W	03	38	310130	04.7	4	1514	1538
00	02DM	73 48N	139 48E	01	34	310253	05.1	4	1068	1094
00	02DS	69 23N	161 01E	01	37	310255	05.2	4	1185	1211
00	02DS	27 58N	164 41W	01	33	310307	04.8	4	1862	1886
00	03DM	71 42N	129 41E	01	36	310425	05.0	4	1131	1156
00	06DM	72 13N	058 37E	01	35	310857	05.0	4	1113	1138
00	06DS	52 21N	093 19E	01	39	310903	04.7	4	1481	1505
00	06DS	35 35N	101 28E	01	36	310907	04.7	4	1741	1765
00	07DS	54 49N	068 36E	01	39	311033	04.8	4	1439	1463
00	07DS	43 56N	075 15E	01	38	311036	04.7	4	1612	1636

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00	08DS	64 40N	034 21E	01	39	311201	05.0	4	1299	1324
00	08DS	61 30N	039 01E	01	39	311202	04.9	4	1355	1380
00	08DS	56 36N	044 15E	01	40	311203	04.8	4	1438	1462
00	08DS	52 22N	047 34E	01	40	311204	04.7	4	1506	1530
00	08DS	39 31N	054 16E	01	38	311208	04.7	4	1707	1731
00	09AS	37 56N	117 40W	01	04	311314	08.5	4	244	287
00	09DS	56 39N	021 20E	01	39	311334	04.8	4	1443	1467
00	09DS	55 11N	022 36E	02	39	311334	04.7	4	1467	1491
00	09DS	53 42N	023 45E	03	39	311335	04.7	4	1491	1515
00	09DM	49 15N	026 43E	01	39	311336	04.4	4	1563	1585
00	13AM	68 25N	179 10E	01	24	311925	06.0	4	799	829
00	14DS	41 35N	083 42W	01	38	312111	04.7	4	1747	1771
00	14DS	40 03N	083 03W	02	38	312111	04.7	4	1771	1795
00	14DS	38 30N	082 27W	03	38	312112	04.7	4	1795	1819
00	14DS	36 56N	081 52W	04	37	312112	04.7	4	1819	1842
00	14DS	35 22N	081 19W	05	37	312113	04.8	4	1842	1866
00	14DS	33 47N	080 47W	06	37	312113	04.8	4	1866	1890
00	14DM	21 57N	077 25W	01	32	312116	04.7	4	2045	2069
00	14DM	20 22N	077 01W	02	32	312116	04.8	4	2069	2093
00	14DM	18 46N	076 39W	03	31	312117	04.8	4	2093	2117
00	15DM	45 57N	108 35W	01	39	312240	04.3	4	1625	1647
00	15DM	44 31N	107 53W	02	39	312241	04.3	4	1647	1669
00	15DM	43 07N	107 13W	03	39	312241	04.3	4	1669	1691
00	15DM	41 41N	106 36W	04	39	312242	04.4	4	1691	1712
00	15DM	40 15N	106 00W	05	38	312242	04.4	4	1712	1734

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00	16DS	38 24N	128 07W	01	38	010013	04.7	4	1782	1806
-30	16DS	33 08N	125 11W	01	36	010014	04.8	4	1866	1890
00	18AS	58 47N	049 19E	01	17	010255	07.3	4	625	661
-15	18AS	63 15N	053 19E	01	19	010257	06.9	4	699	734
-15	18DM	73 37N	139 20E	01	34	010304	04.9	4	1153	1178
00	19AS	55 31N	023 25E	01	15	010425	07.5	4	577	615
15	19AS	59 54N	029 02E	01	18	010426	07.1	4	658	694
-15	19AS	67 55N	038 51E	01	23	010429	06.5	4	795	828
-30	19DS	72 01N	127 46E	01	35	010435	05.1	4	1215	1241
-15	20DM	72 11N	101 27E	01	35	010616	04.8	4	1184	1208
00	20DS	49 00N	135 28E	01	40	010613	04.7	4	1594	1618
-15	21DM	69 45N	087 26E	01	36	010737	04.7	4	1245	1269
-30	21DS	51 42N	112 26E	01	39	010743	04.7	4	1561	1585
15	21DS	40 20N	116 16E	01	40	010745	04.7	4	1732	1756
-30	22DM	73 08N	054 13E	01	34	010907	04.9	4	1170	1195
30	22DM	67 41N	064 57E	01	38	010908	04.7	4	1263	1287
00	22DS	57 16N	083 39E	01	40	010912	04.7	4	1460	1484
-15	22DM	43 15N	093 19E	01	39	010915	04.4	4	1686	1708

T. STELLAR INDEX DATA

1. OPERATION (SLAVED TO PAN (SL) OR INDEPENDENT (ID)
2. PASS NO.
3. TIME ON (HRS AND MIN.)
4. LATITUDE ON
5. TIME OFF (HRS AND MIN)
6. LATITUDE OFF

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1	2	3	4	5	6
SL	0	0009	213	0010	211
ID	1	0110	140	0127	265
SL	1	0129	254	0130	250
ID	2	0240	140	0259	260
SL	2	0307	228	0308	227
ID	3	0411	140	0432	250
ID	4	0542	140	0606	240
ID	5	0725	275	0738	232
ID	6	0856	275	0915	208
ID	7	1014	140	1044	215
ID	8	1144	140	1212	225
SL	9	1214	138	1315	139
ID	9	1332	265	1342	225
ID	10	1504	260	1510	235
ID	13	1920	150	1926	170
ID	14	2048	140	2118	215
ID	15	2219	140	2247	220
ID	16	2349	140	0001	175
SL	16	0013	238	0014	237
SL	16	0014	233	0015	232
ID	17	0120	140	0138	260
ID	18	0251	140	0309	260
ID	19	0421	140	0443	250
ID	20	0552	140	0617	235

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U. SYSTEM TIME TO CLOCK TIME CORRELATION

1. PASS NUMBER
2. SYSTEM TIME (GCT - MIL SEC)
3. CLOCK TIME (MIL SEC)
4. DELTA SYSTEM TIME
5. DELTA CLOCK TIME
6. DIFFERENCE DELTA SYSTEM, DELTA CLOCK

1	2	3	4	5	6
9	47595.100	72712.007	47537.328	47537.321	MINUS .007
16	702.541	112219.445	39507.441	39507.438	MINUS .003
25	48193.560	159710.459	47491.019	47491.014	MINUS .005
31	82396.792	193913.698	34203.232	34203.239	PLUS .007

V. YAW TABLES: THERE WILL BE A UNIQUE YAW PROGRAM TO COMPENSATE FOR CORIOLIS FORCE FOR EACH POSSIBLE INCLINATION ANGLE TO BE USED IN THE KH-6 SYSTEM. THE FOLLOWING TABLES CONSIST OF LATITUDE IN INCREMENTS OF FIVE DEGREES AND THE CORRESPONDING PROGRAMMED YAW. THE MISSION TECHNICAL DATA WILL INCLUDE THE INCLINATION ANGLE USED FOR THE MISSION (ITEM G). WITH THIS INFORMATION THE PROGRAMMED YAW FOR ANY LATITUDE CAN BE DETERMINED.

YAW TABLES

INCLINATION: 65 DEGREES		INCLINATION: 70 DEGREES	
GEODETIC LATITUDE DEGREES	VEHICLE YAW ANGLE DEGREES	GEODETIC LATITUDE DEGREES	VEHICLE YAW ANGLE DEGREES

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0	PLUS	3.25	0	PLUS	3.36
5	PLUS	3.23	5	PLUS	3.34
10	PLUS	3.18	10	PLUS	3.29
15	PLUS	3.10	15	PLUS	3.21
20	PLUS	2.99	20	PLUS	3.11
25	PLUS	2.85	25	PLUS	2.97
30	PLUS	2.68	30	PLUS	2.82
35	PLUS	2.49	35	PLUS	2.63
40	PLUS	2.26	40	PLUS	2.42
45	PLUS	2.00	45	PLUS	2.18
50	PLUS	1.71	50	PLUS	1.91
55	PLUS	1.37	55	PLUS	1.62
60	PLUS	.95	60	PLUS	1.28
65	PLUS	.15	65	PLUS	.87
65	MINUS	.15	70	PLUS	.13
60	MINUS	.94	70	MINUS	.13
55	MINUS	1.35	65	MINUS	.87
50	MINUS	1.68	60	MINUS	1.27
45	MINUS	1.97	55	MINUS	1.59
40	MINUS	2.22	50	MINUS	1.88
35	MINUS	2.43	45	MINUS	2.14
30	MINUS	2.62	40	MINUS	2.36
25	MINUS	2.78	35	MINUS	2.57
20	MINUS	2.91	30	MINUS	2.74
15	MINUS	3.02	25	MINUS	2.89

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10	MINUS 3.09	20	MINUS 3.02
5	MINUS 3.14	15	MINUS 3.12
0	MINUS 3.16	10	MINUS 3.19
		5	MINUS 3.24
		0	MINUS 3.27

INCLINATION: 75 DEGREES

GEODETIC LATITUDE DEGREES	VEHICLE YAW ANGLE DEGREES
0	PLUS 3.44
5	PLUS 3.42
10	PLUS 3.37
15	PLUS 3.30
20	PLUS 3.19
25	PLUS 3.07
30	PLUS 2.91
35	PLUS 2.73
40	PLUS 2.53
45	PLUS 2.31
50	PLUS 2.06
55	PLUS 1.79
60	PLUS 1.49
65	PLUS 1.17
70	PLUS .78
75	PLUS .10

INCLINATION: 82 DEGREES

GEODETIC LATITUDE DEGREES	VEHICLE YAW ANGLE DEGREES
0	PLUS 3.50
5	PLUS 3.48
10	PLUS 3.43
15	PLUS 3.36
20	PLUS 3.26
25	PLUS 3.14
30	PLUS 2.99
35	PLUS 2.82
40	PLUS 2.63
45	PLUS 2.41
50	PLUS 2.18
55	PLUS 1.93
60	PLUS 1.66
65	PLUS 1.38
70	PLUS 1.08
75	PLUS .75

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75	MINUS .10	80	PLUS .36
70	MINUS .78	80	MINUS .36
65	MINUS 1.15	75	MINUS .74
60	MINUS 1.47	70	MINUS 1.07
55	MINUS 1.76	65	MINUS 1.36
50	MINUS 2.02	60	MINUS 1.64
45	MINUS 2.26	55	MINUS 1.90
40	MINUS 2.47	50	MINUS 2.14
35	MINUS 2.66	45	MINUS 2.36
30	MINUS 2.83	40	MINUS 2.56
25	MINUS 2.98	35	MINUS 2.75
20	MINUS 3.10	30	MINUS 2.91
15	MINUS 3.20	25	MINUS 3.05
10	MINUS 3.27	20	MINUS 3.17
5	MINUS 3.31	15	MINUS 3.26
0	MINUS 3.33	10	MINUS 3.33
		5	MINUS 3.37
		0	MINUS 3.39

T O P S E C R E T

25X1

END OF MESSAGE

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